

REMARKS

Upon entry of the amendments in this paper, claims 1-8 will be pending in the above-identified application. Claim 1 has been amended. No new matter is entered.

It is respectfully submitted that this paper is fully responsive to the Office action mailed on July 17, 2008.

Applicants' Response to the Claim Rejections under 35 U.S.C. §112

Claims 1-8 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicants regard as the invention.

Specifically, the rejection maintains that the term "heat-resistant adhesive film" in claim 1 is unclear, because it is a relative term which renders the claim indefinite. As noted above, the term has been removed from the claim. Wherefore, applicants respectfully submit the rejection is now moot.

Applicants' Response to the Claim Rejections under 35 U.S.C. §103

Claims 1-8 are rejected under 35 U.S.C. §103(a) as being unpatentable over Hase et al (JP 2002-361744) in view of Abe et al. (US 5,677,024).

In response thereto, applicants respectfully submit that there is no reason having a rational underpinning whereby a skilled artisan would combined the teachings of Hase and Abe to derive the currently claimed invention. Specifically, the devices of Hase and Abe do not share sufficient

commonality whereby the device of Hase would benefit by adopting features of Abe, and Abe does not provide sufficient teaching of a MOR value in line with applicants' claims.

The current rejection points to Hase as disclosing the physical lamination structure as set forth in applicants' claim 1 in Figs. 12-14. However, the rejection admits that Hase does not specifically disclose the last two elements of applicants' claim wherein the molecular orientation ratio of the protective film is in a range of 1.0 to 1.7, and the deviation of the molecular orientation ratio in each of the machine direction and the transverse direction of the protective film is 0.1 or less. The rejection relies on Abe as teaching these features.

The Office Action specifically maintains that Abe's teaches a protective release film with the molecular orientation ratio of the protective film in a range of 1.0 to 1.7, and the deviation of the molecular orientation ratio in each of the machine direction and the transverse direction of the protective film is 0.1 or less, citing to column 3, lines 22-26, 42-60 and Table 1. The rejection concludes that the skilled artisan would be motivated to combine Hase and Abe to allow for visual inspection of the laminate for foreign matter based on Abe's teaching at column 2, lines 42-55.

Applicants respectfully submit that the asserted motivation to combine is not a viable reason to modify the device of Hase because Hase is not concerned with visual inspection as is Abe. Specifically, Hase is directed to a lamination for a flexible printed circuit board. See paragraph [0002]. Contrary, Abe is directed to a release film for covering an LCD display. According to Abe, the problem occurs in large-sized LCD, where exact visual inspection is

hindered because of an optical anisotropy of a biaxially oriented aromatic polyester film which is the base film of a release film. See col. 1, line 67 to col. 2, line 4.

The rejection proposes that one of skill in the art would be motivated to use the release film of Abe in Hase to better ascertain defects by visual inspection. However, as detailed above, and described in Abe, this is a problem which is germane to LCD and similar displays, not flexible printed circuit boards. In other words, one of skill in the art would have no reason to ascertain that better visual inspection of circuit boards would be obtained or is even required in light of the teaching of Abe. Hence, there is no reason with a rational underpinning for one of skill in the art to adopt the release film of Abe into the device of Hase, in light of the problem to be solved in Abe, because there is no reason for one of skill in the art to ascertain that this problem occurs in the device of Hase.

As set forth in the present specification at page 9, lines 9-15 “by decreasing the deviation of the molecular orientation ratio, the expansion and shrinkage of the heat-resistant adhesive film and the metal foil can be suppressed more uniformly in all directions during the thermal lamination, and thereby the appearance of the flexible laminate and dimensional stability after removal of the metal foils can be further improved.” In other words, the protective film defined in the present invention provides the resultant laminate with good appearance and dimensional stability. That is the protective film provides improvement in appearance and dimensional stability of the laminate. This is supported by examples and comparative example showing that the difference in molecular orientation ratio (MOS) of the protective film brings some change in appearance and dimensional stability of the resultant laminate despite their using same starting

materials. Hence, the MOR of the protective film (which eventually must be removed from the laminate) affecting not only appearance but also dimensional stability of the laminate is surprising for the skilled person. There is no such teaching in either of the cited references.

Rather, the polyester film having 1.3 to 1.8 of MOR used as a base film of release film in Abe is not capable of improving the appearance of a polarizing film or a retarded polarizing film or a retardation film. The polyester film having 1.3 to 1.8 of MOR is not used to improve the property of the polarizing film or the retarded polarizing film or the retardation film, but to assure good state of visual inspection. If the release film is not selected properly, the exact visual inspection is hindered because of an optical anisotropy of the polyester film. See col. 1, line 61 to col. 2, line 4. The reason why MOR of polyester film should be in the specific range is to prevent an operator from overlooking the defects, and the good state of visual inspection enables the operator to exclude the laminate in which the foreign mailers are incorporated in the final inspection step. Therefore, the appearance itself does not change by using polyester film having different MOR.

Second, in light of the above, there is insufficient disclosure as to the deviation defined in applicants' claims in Abe. Specifically, the deviation in machine (MD) direction is not mentioned and is not measured in Examples of Abe. In regard to the feature of the deviation of the molecular orientation ratio in each of the machine direction and the transverse direction of the protective film is 0.1 or less the rejection cites to the disclosure in column 3 of deviation measurements from three points. The three points are described at column 3, lines 29-37 as follows:

The measuring points are three points, i.e., a central point and 1/5 points from each end between the central point and both ends of the film in the width direction of the film (the direction at right angles with the direction of the orientation main axis measured by the microwave transmission-type molecular orientation meter). That is, the MOR values are measured at three points which are distant by 10%, 0% and 90% from one end in a straight line in the width direction of the film.

The difference in MOR value referred to in Abe is between these three points. See col. 3, lines 56-60. The applicants' specification describes that the deviation is determined in a different manner. Specifically, page 9, line 18 to page 10, line 5 of the specification states:

In the present invention, in order to determine the deviation of the molecular orientation ratio, with respect to the entire surface of a protective film to be used, the molecular orientation is measured every 0.3 m in the MD and every 0.3 m in the TD, and it is checked if the deviation of the molecular orientation is 0.1 or less. In order to confirm the deviation of the molecular orientation ratio in the protective film, measurement of every 0.3 m is sufficient. Additionally, when a long film is used, in order to confirm the deviation of the molecular orientation ratio, the MOR is measured with respect to 2 m taken from each 100 m in length, and it is sufficiently checked if the deviation is 0.1 or less.

Based on the above differences in how Abe evaluates the deviation from that of applicants' specification, there is no basis for one of skill in the art to derive the feature that the deviation of the molecular orientation ratio in each of the machine direction and the transverse direction of the protective film is 0.1 or less as set forth in applicants' claims.

In conclusion, there is insufficient reason for one of skill in the art to combine the teachings of Hase with those of Abe to derive the claimed invention. Abe is directed to a non-analogous device from that of Hase, and as a result Hase does not have the problems discussed within Abe. Further, Abe does not provide sufficient teaching to one of skill in the art to adopt

the feature that the deviation of the molecular orientation ratio in each of the machine direction and the transverse direction of the protective film is 0.1 or less as set forth in applicants' claims.

In light of the above, applicants respectfully request favorable reconsideration of the patentability of parent claim 1 and its respective dependent claims.

Additionally, in regard to dependent claim 4, applicants respectfully note that the rejection relies on Hase as teaching the thickness of the protective film 75 μm or more. However, Abe, specifically teaches a thickness substantially thinner, 38 μm for the biaxial oriented aromatic polyester film. See col 8, lines 60-67 and Table 1. Further, the thickness is relevant to the resulting MOR properties. See page 8, lines 9-12 of the specification. Hence, assuming arguendo that one of skill in the art where to incorporate the film of Abe into the device of Hase, they would need to maintain the thickness of Abe's film, rather than adopt the thickness of Hase. As such, there is no basis for one of skill in the art to maintain the thickness of Hase in a protective film which otherwise adopts the characteristics of the film of Abe, and a film with such a greater thickness would not have the characteristic MOR values taught by Abe.

In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

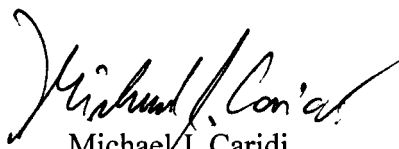
Application No.: 10/579,942
Art Unit: 1791

Amendment under 37 C.F.R. §1.111
Attorney Docket No.: 062604

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,
WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP

A handwritten signature in black ink, appearing to read "Michael J. Caridi". The signature is fluid and cursive, with the first name "Michael" and last name "Caridi" clearly distinguishable.

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